BEARING FAILURE INDICATOR

Abstract of the Disclosure

A shaft is disposed along an axis of rotation and a bearing failure indicator, in the form of a disk having protrusions or teeth spaced about its periphery, is provided on the shaft adjacent a bearing supporting a tubular roll for rotation relative to the shaft. When the bearing has undergone a predetermined amount of wear, which happens prior to bearing failure, the teeth or protrusions of the disk come into engagement with a contact surface due to non-concentric rotation of the roll relative to the shaft. In one embodiment, the disk is thick and the teeth make an audible knocking sound which warns an operator of an impending bearing failure. In another embodiment, the disk is relatively thin and a squealing sound is generated when the protrusions engage the contact surface. In addition to the bearing failure indicator, a slip coupling may be used to prevent the transmission of torque to the drive shaft when interference between the disk and the contact surface occurs. Further, a secondary bearing may be provided to prolong operation of a wearing primary bearing.

Assignment

The entire right, title and interest in and to this application and all subject matter disclosed and/or claimed therein, including any and all divisions, continuations, reissues, etc., thereof are, effective as of the date of execution of this application, assigned, transferred, sold and set over by the applicant(s) named herein to Deere & Company, a Delaware corporation having offices at Moline, Illinois 61265, U.S.A., together with all rights to file, and to claim priorities in connection with, corresponding patent applications in any and all foreign countries in the name of Deere & Company or otherwise.